

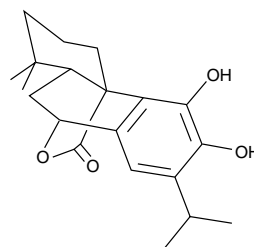
Product Information



Carnosol

Item No. 89800

CAS Registry No.: 5957-80-2
Formal Name: 1,3,4,9,10,10aS-hexahydro-5,6-dihydroxy-1,1-dimethyl-7-isopropyl-2H-9S,4aR-(epoxymethano)phenanthren-12-one
MF: C₂₀H₂₆O₄
FW: 330.4
Purity: ≥96%
Stability: ≥1 year at -20°C
Supplied as: A crystalline solid
UV/Vis.: λ_{max}: 212, 285 nm



Laboratory Procedures

For long term storage, we suggest that carnosol be stored as supplied at -20°C. It should be stable for at least one year.

Carnosol is supplied as a crystalline solid. A stock solution may be made by dissolving the carnosol in an organic solvent purged with an inert gas. Carnosol is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of carnosol in these solvents is 8, 250, and 35 mg/ml, respectively.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of carnosol can be prepared by directly dissolving the crystalline compound in aqueous buffers. The solubility of carnosol in PBS (pH 7.2) is less than 30 µg/ml. We do not recommend storing the aqueous solution for more than one day.

Carnosol is one of the phenolic antioxidants present in extracts of the herb rosemary (*Rosmarinus officinalis*). Carnosol inhibits the formation of tumors derived using irritants such as TPA and DMBA in murine models of carcinogenesis.¹ The effective dose reported is 1-10 µM topically or 6 µg/ml when added to the supernatants of cultured cells.² Addition of rosemary extracts to the diet as a 1% supplement by weight was also found to decrease the frequency of DMBA-DNA adducts.¹

References

1. Singletary, K., MacDonald, C., and Wallig, M. Inhibition by rosemary and carnosol of 7,12-dimethylbenz[*a*]anthracene (DMBA)-induced rat mammary tumorigenesis and *in vivo* DMBA-DNA adduct formation. *Cancer Lett.* **104**, 43-48 (1996).
2. Chan, M.M., Ho, C.T., and Huang, H.I. Effects of three dietary phytochemicals from tea, rosemary and turmeric on inflammation-induced nitrite production. *Cancer Lett.* **96**, 23-29 (1995).

Related Products

Nordihydroguaiaretic Acid - Item No. 70300 • Sesamin - Item No. 70310 • Resveratrol - Item No. 70675 • Astaxanthin - Item No. 70685 • Glutathione Assay Kit - Item No. 703002

WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY; NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

MATERIAL SAFETY DATA

This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Material Safety Data Sheet, which has been sent via email to your institution.

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